SER EUROPE

13th SERE CONFERENCE
5th – 9th SEP 2022
ALICANTE, SPAIN

Universitat d'Alacant
Universidad de Alicante

Restoring Nature, Reconecting People

1 - Welcome

2 - Organizing Committee

3 - Scientific Committee

4 - Programme detail

5 - Presentations & workshops Abstracts

6 - Posters List

7 - Posters Abstracts

8 - Sponsors

Welcome

Restoring nature, reconnecting people

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Welcome to the 13th European Conference on Ecological Restoration! Welcome to SER Europe 2022!

The Society for Ecological Restoration (SER) is the professional Society of reference in the field of ecological restoration. It promotes the science, practice, and policy of ecological restoration to protect biodiversity, improve adaptation to climate change, mitigate its effects, and restore a healthy relationship between nature and society. For three decades, SER has given voice to this discipline and provided leadership in all aspects of its development. The European Chapter of the Society, acquaints hundreds of experts and organizational members in 37 countries, and has affiliated organizations in 6 of them.

These are crucial times for ecological restoration in Europe and globally. Ecological restoration is essential to combat climate change, protect biodiversity and reverse desertification, and thus contribute to human wellbeing. Under the UN Decade of Ecosystem Restoration (2021-2030) and the EU Biodiversity Strategy for 2030, we can reverse the global environmental crisis, and give Anthropocene a chance. Yet, to obtain all the benefits that ecological restoration can provide and ensure a fair distribution of wealth, we must promote its practice and strive to increase the quality of restoration programs. Bridges between science, practice and policy must be built, based on scientific excellence, to better understand socio-ecological systems and their management.

SERE2022 represents an excellent opportunity to foster efficient reciprocal exchanges between managers, decision and policymakers and the academia across Europe. It is also the place where experts from different restoration sectors (forests, wetlands, rivers, agroecosystems, marine areas, urban environments, extractive industries, etc.) have the unusual chance to sit together and learn from each other.

There are many reasons to meet in Alicante, including high levels of biodiversity, long history of interactions between humans and nature, nice examples of socio-ecological co-evolution, the combination of land and sea, and the long history of actions to combat degradation and desertification. Last, but not least, the strong commitment of the government of the Region of Valencia and the Spanish government with ecological transition and ecological restoration.

For one week, we will gather in Alicante to assess recent advances in the theory and practice of ecological restoration and discuss future priorities. We invite you to take full advantage of the many events that will be organized under the umbrella of SERE 2022 and contribute to build the European leadership in ecological restoration.

JORDI CORTINA-SEGARRA
Chair SER Europe
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Plant-animal seed dispersal interactions as key drivers of ecological restoration in a changing world

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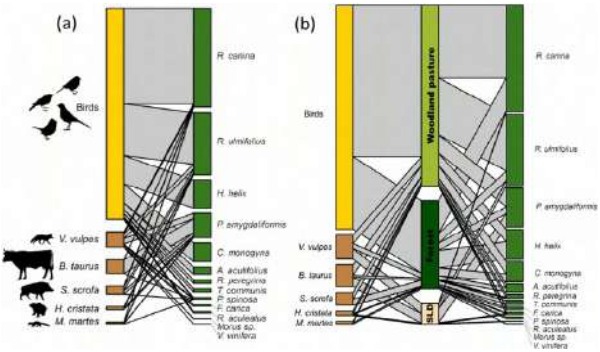
ABSTRACT

Many global and European commitments state the need to plant billions of trees and restore millions of hectares of degraded ecosystems to contrast biodiversity loss, desertification and climate change. Seed dispersal is a crucial process promoting vegetation dynamics, and in the Mediterranean, up to 65% of woody plant species need animals for seed dispersal. Therefore, such mutualistic ecological interaction represents a key nature-based solution to help us reaching our commitments.

In this presentation first we will report the strong expansion rate and correlated fine-scale spatio-temporal patterns of woody natural regeneration over a pastureland, using a spatially-explicit framework deployed over 30 ha inside the last large forest remnant in western Sicily, Italy. Then we will quantitatively demonstrate the key and complementary seed dispersal services promoted by birds, wild mammals and cattle across three different habitats, revealing the structure, specialization and modularity of the trophic and spatial seed dispersal networks. Finally, we will discuss the effects of human-made habitat heterogeneity and climate change on animal seed dispersal services and explore some strategies to take advantage of such services to promote ecological restoration of natural habitats as well as to increase biodiversity in agroecosystems.



Keywords: biodiversity, defaunation, ecological networks, frugivory, seed dispersal

Fig. 1 Plant-animal trophic (a) and spatial (b) seed dispersal networks underpinning vegetation expansion in a Mediterranean area

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